

PATENT

Atty Docket No.: 200310065-1

App Ser. No.: 10/657,527

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the claim amendments and following remarks. By virtue of the amendments above, claims 2, 4, 7, and 11 have been amended. Accordingly, claims 1-13 are currently pending in the present application, of which, claims 1, 7, and 11 are independent.

No new matter has been introduced by way of the claim amendment; entry thereof is therefore respectfully requested.

Allowable Subject Matter

The indication that claims 3 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form is noted with appreciation.

It is believed that all of the pending claims are allowable over the cited documents of record. Therefore, applicants have elected to not amend claims 1 and 7 to include the features contained in allowable claims 3 and 9, respectively.

Claim Objections

Claims 2 and 4 were objected to for allegedly having an informality. Specifically, claims 2 and 4 were objected to because terms contained therein lacked antecedent basis. Claims 2 and 4 have been amended in minor respects to correct this informality and the Examiner is therefore respectfully requested to withdraw the objection of claims 2 and 4.

PATENT**Atty Docket No.: 200310065-1**
App Ser. No.: 10/657,527**Claim Rejections Under 35 U.S.C. §102(e)**

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 1, 2, 4-8, and 10-13 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,483,537 to Mayer, III et al (hereinafter "Mayer"). This rejection is respectfully traversed because Mayer does not disclose the claimed invention as set forth in independent claims 1, 7, 11, and their depending claims.

Claim 1 of the instant invention discloses a method for correcting non-uniformity in luminance of an image generated by a projector and displayed obliquely on a screen. The projector has a plurality of pixels for use in generating images and each projector pixel subtends to a corresponding projected area on the screen. The projector pixel that subtends to the largest projected area on the screen is identified with a camera and a ratio between the projected area of each pixel and the largest projected area is determined. This ratio is

PATENT**Atty Docket No.: 200310065-1
App Ser. No.: 10/657,527**

organized into an attenuation array that is used to modify the luminance information of an input image to drive the projector. As a result of the modification, the image displayed on the screen is uniformly luminescent.

Claim 7 has been amended to include the feature that the luminance correction engine may be configured to determine a ratio between a projected area of each pixel and the largest projected area on the screen and organize the ratio determined for each pixel into an attenuation array. Similarly, claim 11 has been amended to include the feature that the means for calculating an attenuation array is configured to determine a ratio between a projected area of each pixel and the largest projected area on the screen.

It is respectfully submitted that the Official Action has improperly rejected claims 1, 7, and 11 based upon the disclosure contained in Mayer because Mayer fails to disclose each and every feature claimed in claims 1, 7, and 11. For instance, Mayer fails to disclose that a pixel that subtends to the largest projected area on the screen is identified, that a ratio between the projected area of each pixel and the largest projected area is determined, and that the ratio determined for each pixel is organized into an attenuation array, as claimed in claim 1 and amended claims 7 and 11.

The Official Action alleges that Mayer discloses "means for identifying the projector pixel that subtends to the largest projected area on the screen" and "means for organizing the ratio determined for each pixel into an array". More particularly, the Official Action asserts that the camera 40 and the reference numeral 50, which refers to a "control computer which sequentially illuminates small portions of the projector image." (See column 4, lines 2-7), discloses the claimed "means for identifying the projector pixel that subtends to the largest projected area on the screen" and "means for organizing the ratio determined for each pixel

PATENT

Atty Docket No.: 200310065-1

App Ser. No.: 10/657,527

into an array". Although a fairly tenuous argument may be made that the camera 40 and the control computer 50 of Mayer may be capable of performing the claimed functions, there is appears to be no disclosure in Mayer of actually implementing the camera 40 and the control computer 50 to identify the projector pixel that subtends to the largest projected area on the screen. There further appears to be no disclosure in Mayer of determining a ratio between the projected area of each pixel and the largest projected area and of organizing the ratio determined for each pixel into an attenuation array.

In fact, the Official Action does not assert that Mayer discloses that the projector pixel that subtends to the largest projected area on the screen is identified at all. The Official Action also does not assert that a ratio between the projected area of each pixel and the largest projected area is determined. Moreover, the Official Action does not assert that the ratio determined for each pixel is organized into an attenuation array. It is respectfully submitted that the Official Action has failed to make these assertions because Mayer clearly fails to disclose these features.

In setting forth the rejection of claims 1, 7, and 11, however, the Official Action merely asserts that Mayer discloses means (reference numerals 40 and 50) for performing these functions. It is, however, well established in patent law, that a reference that discloses a device that could perform a particular function should not be construed as actually performing that function, unless such a disclosure is made in the reference. Thus, in this case, the disclosure in Mayer of a camera 40 and a computer 50 that could, for the sake of argument only, be employed to perform the above-identified claimed features, is insufficient to conclude that those elements actually do perform the claimed features. The omission in

PATENT**Atty Docket No.: 200310065-1
App Ser. No.: 10/657,527**

the Official Action, therefore, is clear evidence that the rejection of claims 1, 7, and 11 is improper.

Accordingly, it is respectfully submitted that Mayer fails to at least disclose that the projector pixel that subtends to the largest projected area on the screen is identified, as claimed in claim 1 of the present invention. In addition, Mayer fails to at least disclose a luminance correction engine configured to determine a ratio between a projected area of each pixel and the largest projected area on the screen, as claimed in claim 7. Moreover, Mayer fails to at least disclose that a means for calculating an attenuation array is configured to determine a ratio between the projected area of each pixel and the largest projected area on the screen to calculate the attenuation array, as claimed in claim 11. As such, the Official Action has failed to establish that Mayer anticipates the claimed invention as set forth in claims 1, 7, and 11.

The Examiner is therefore respectfully requested to withdraw the rejection of claims 1, 7, and 11 and to allow these claims. Claims 2, 4-6, 8, 10, 12, and 13 are also allowable over the cited documents of record at least by virtue of their respective dependencies upon allowable claims 1, 7, and 11. Claims 2, 4-6, 8, 10, 12, and 13 are also allowable over the cited documents for reasons in addition to their respective dependencies.

For instance, Mayer fails to disclose that a homography that maps between a first coordinate system relative to a projector and a second coordinate system relative to the surface is generated and that the projector pixel that subtends to the largest projected area on the screen is based on the homography as set forth in claim 2 of the present invention.

PATENT

Atty Docket No.: 200310065-1

App Ser. No.: 10/657,527

Conclusion


In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: October 14, 2005

By


Timothy Kang
Registration No.: 46,423

MANNAVA & KANG, P.C.
8221 Old Courthouse Road
Suite 104
Vienna, VA 22182
(703) 652-3817
(703) 880-5270 (facsimile)